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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------------|
| 10/779,941 | 02/17/2004 | Tsann Lin | HSJ9-2003-0103US1 (0107-0) | 9358 |
| 7590 12/21/2007 ATTN: John J. Oskorep One Magnificent Mile Center Suite 1400 980 N. Michigan Avenue Chicago, IL 60611 | | | EXAMINER NGUYEN, TAI V | |
| | | | ART UNIT 3729 | PAPER NUMBER |
| | | | MAIL DATE 12/21/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/779,941

Applicant(s)

LIN, TSANN

Examiner

Tai Van Nguyen

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 14-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-33 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed 10/22/2007 has been fully considered and made of record.

Election/Restrictions

2. Applicants again traverse the restriction requirement.

The restriction requirement between Group I and II is maintained.

In the applicants' last response (filed 3/23/2007), the table that compares Group I and II only shows the similarities between the two groups, Not the differences. There are two distinct lines at patentability between the two groups.

Group I requires the features of depositing lead layers without a resist and without depositing the lead layers over a track-width region (as recited in claim 1) and ion milling (as recited in claim 14), none of which is required in Group II.

Group II requires depositing a silicon reactant layer, which is not required in Group I. Thus, the two groups, via the separate independent features, can support separate patents.

The requirement is still deemed proper and therefore made FINAL.

3. Claims 14-21 have been continued withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention of Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/23/2007.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Nix et al (5,532,892) in view of Nachtman John S. (US 3,152,886).

As applied to claim 1, Nix et al. disclose a method for use in making a read head comprising: forming a read sensor (e.g. 32) which is abutted by longitudinal bias layers and has a trackwidth region (column 6, lines 1-6); and depositing lead layers (e.g. 42) selectively over the longitudinal bias layers, without a resist or other mask structure formed over the trackwidth region and without depositing lead layers over the trackwidth region (see sequence Fig. 2B + 2C).

Note: Nix et al depositing lead layers selectively over longitudinal bias layers without using resist or mask structure formed over the longitudinal bias layers.

However, Nix et al does not teach use silicon reduction process and a hydrogen reduction process. Nachtman John S. discloses used silicon reduction process and a hydrogen reduction process (column 1, lines 23-50+).

It would have been obvious to one of ordinary skill in the art at this time the inventions was made to have modified the method of Xiao, by including using a silicon reduction and a hydrogen reduction process, as taught by Nachtman John S., to positively improve the metallic compounds (column 1, lines 11-12).

Allowable Subject Matter

6. Claims 3-13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 22-33 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art does not teach all of the limitations of the claimed invention including:

In claim 22: - depositing a silicon reactant layer over the longitudinal bias layers; and passing a carrier gas which includes lead layer material so that the carrier gas is chemically reduced by the silicon.

In claim 28: - passing a hydrogen and a carrier gas which includes lead layer material, so that the carrier gas is chemically reduced by the hydrogen gas.

Response to Arguments

8. Applicant's arguments with respect to claims 1-13 and 22-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 571-272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN. December 18, 2007



A. DEXTER TUGBANG
PRIMARY EXAMINER